

Notice of Allowability

Application No.

10/778,021

Examiner

Fred Ferris

Applicant(s)

WATKINS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 21 June 2007.
2. ☒ The allowed claim(s) is/are 37-55.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20070803.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


FRED FERRIS
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

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DETAILED ACTION

1. *This Office Action is responsive to applicants' amendment filed 21 June 2007. Applicants have now cancelled claims 1-36 in total. Claims 37-55 remain pending in this application and have now been allowed over the prior art of record.*

Response to Arguments

2. *Applicant's arguments filed 21 June 2007 have been fully considered and are persuasive.*

Regarding applicants' response to Drawing objections: The drawing objections with regard to certain elements are withdrawn in view of applicant's cancellation of claims 28-38 and supporting arguments filed 21 June 2007. (e.g. the "demand input structure" relates to demand sets sorted by time points as disclosed on specification page 14, lines 25-27, and in Figures 8A-8C) However, the drawings filed 17 February 2004 are suitable for examination purposes only. New formal drawings are required responsive to this office action in order to avoid abandonment.

Regarding applicants' response to 101 rejections: The previous 101 rejections are withdrawn in view of applicant's cancellation of claims 28-36, the amendment to the claims, and supporting arguments filed 21 June 2007.

Regarding applicants' response to 112(1) rejections: The rejections are withdrawn in view of applicant's cancellation of claims 28-36 and supporting arguments filed 21 June 2007. (Same reasoning as with drawing issues, e.g. the "demand input

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structure" relates to demand sets sorted by time points as disclosed on specification page 14, lines 25-27, and in Figures 8A-8C)

Regarding applicants' response to 103 rejections: *The previous 103 rejections are withdrawn in view of applicant's cancellation of claims 28-36, the amendment to the claims, and supporting arguments filed 21 June 2007.*

Allowable Subject Matter

3. *Claims 37-55 are allowed over the prior art of record.*

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing a method for planning and deploying network equipment over a time period to sites based on; demand input structure sorted by time points, optimizing routing based on multi-nodal graphs, equipment placement based demand routing, and modeling cost functions. This has been disclosed in the prior art of record.

While these elements are individually disclosed in the prior art, the prior art of record does not meet the conditions as suggested in MPEP section 2132, namely:

*"The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an **ipsissimis verbis** test, i.e., identity of terminology is not required. **In re Bond**, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)."*

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In particular, the prior art does not disclose the specific sequence of method steps that includes deploying network equipment over a time period to sites based on; demand input structure sorted by time points, optimizing routing based on multi-nodal graphs, equipment placement based demand routing, and modeling cost functions, in combination with the elements of transforming the network into a network model using a multi-nodal directed graph having arcs (representing optimum distribution of various commodities [spec;0054]) based on topology of the network, and subsequently outputting a network equipment deploying solution based on the updated network model and cost function associated therewith when all time points have been process, as now required by independent claim 37.

4. The closest prior art uncovered during examination teaches certain limitations of the claimed invention as follows:

- "Network Simulations with OPNET", X. Chang: discloses the commercially available OPNET Modeler network simulator and modeling tool used for the development and analysis of communications networks. The OPNET Modeler provides a GUI based user interface for developing a simulated network model including a Network Editor, Node Editor, Process Editor, Simulation & Debugging tool, Probe editor, Analysis tool, Filter tool, Animation tool, and a Model Library that includes models for popular network architectures (fiber optic, LAN, Ethernet, x.25, etc.) and models for popular vendor network hardware (routers, amplifiers, etc.). OPNET Modeler therefore allows the user to fully define and simulate the functionality of a

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simulated network and related components. However, Chang does not explicitly disclose or render obvious the additional combination of elements further including transforming the network into a network model using a multi-nodal directed graph having arcs (representing optimum distribution of various commodities [spec;0054]) based on topology of the network, and subsequently outputting a network equipment deploying solution based on the updated network model and cost function associated therewith when all time points have been process, as now required by independent claim 37.

The features noted above therefore render the claimed invention non-obvious over the prior art of record. Dependent claims 38-55 are deemed allowable as depending directly or indirectly from independent claim 37.

5. *Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."*

Conclusion

6. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry*

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of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (571) 273 8300

Fred Ferris, Primary Examiner
Simulation and Emulation, Art Unit 2128
U.S. Patent and Trademark Office
Randolph Building, Room 5D19
401 Dulany Street
Alexandria, VA 22313
Phone: (571-272-3778)
Fred.Ferris@uspto.gov
August 3, 2007

Fred Ferris
FRED FERRIS
PRIMARY EXAMINER
TECHNOLOGY CENTER 2147